

REMARKS

At the outset, the Examiner is thanked for the thorough review and consideration of the pending application. The Office Action dated September 15, 2010 has been received and its contents carefully reviewed.

Claims 1, 5-11, 13-14 and 16-19 are currently pending. Reexamination and reconsideration of the pending claims are respectfully requested.

In the Office Action, claims 1, 5-11, 13, 14 and 16-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Naito (U.S. Patent 6,462,735) in view of Kang (U.S. Pub. No. 2002/0063666), Mizukoshi (U.S. Patent No. 6,919,691), and Chen (U.S. Patent 6,972,772). This rejection is respectfully traversed, and reconsideration is requested.

Claim 1 is allowable over the cited references in that claim 1 recites a combination of elements including, for example, "...wherein the timing controller includes a look-up table which receives Red, Green and Blue N-bit digital data signals having a same number of gray scale values, and converts the Red, Green and Blue N-bit digital data signals into Red, Green and Blue M-bit digital data signals respectively, wherein each of N and M is an integer, M is greater than N, and numbers of gray scale values of at least two of the Red, Green and Blue M-bit digital data signals are different from each other..." None of the cited references including Naito and Kang, singly or in combination, teaches or suggests at least this feature of the claimed invention. Accordingly, Applicants respectfully submit that claim 1 and claims 5-10, which depend from claim 1, are allowable over the cited references.

In the claimed invention, a single look-up table receives Red, Green and Blue N-bit digital data signals having a same number of gray scale values, and converts the Red, Green and Blue N-bit digital data signals into Red, Green and Blue M-bit digital data signals respectively. On pages 2-3 of the Office Action, the Examiner cites Naito as teaching the aforementioned features of claim 1. In particular, the Examiner states that "the timing controller includes a look-up table (i.e., conversion table, see column 11, lines 16-23) which receives Red, Green, and Blue N-Bit (e.g., 8 bit) digital data signals having a same number of gray scale values (256). However, Naito is directed to a projection display device employing **"three light values** for performing optical three light valves," and discloses "a display device

shown in FIG. 1, and a block shown in FIG. 2 are disposed for performing optical modulation of **each** chromatic light of red, green, and blue, and in which an A/D converter 100 performs an A/D conversion onto a picture signal of **each** chromatic light, the ASIC 210 performs gamma correction thereon, the D/A converter 260 performs a D/A conversion thereon, the amplifying block 300 generates an analog picture signal to drive **each** liquid crystal device 400 in response to that, so that optical modulation of each chromatic light is performed (emphasis added).” See Naito at 8:42-57. In other words, the data conversion performed by the ASIC 210 is included in each of Red, Green and Blue liquid crystal device in Naito. Accordingly, Applicants respectfully submit that Naito fails to disclose the limitation of “wherein the timing controller includes a look-up table which receives Red, Green and Blue N-bit digital data signals having a same number of gray scale values, and converts the Red, Green and Blue N-bit digital data signals into Red, Green and Blue M-bit digital data signals respectively,” recited in claim 1.

In addition, on pages 4-5 of the Office Action, the Examiner admits that Naito does not disclose “numbers of gray scale values of at least two of the Red, Green and Blue M-bit digital data signals are different from each other...” The Examiner then cites Chen to cure the deficient teaching of Naito. However, Applicants respectfully submit that the teaching of Chen actually teaches away the teaching of the cited references including Naito, and that there is no motivation for one of ordinary skill to combine Chen and the cited references and arrive at the claimed invention with any reasonable expectation of success. Fig. 2 of Chen shows a prior art technique for white point adjustment for red, green and blue colors. See Chen at 3:36-43. However, Chen points out that the prior art technique “reduces the luminance of the display” and “undesirably degrades the brightness of the output 201, which is noticeable to the user...” See id. at 3:56-4:02. Accordingly, those of ordinary skill in the display industry would not be motivated to incorporate the prior art technique of Chen to the teaching of the cited references including Naito, as it would create a defective display outcome admitted by Chen.

Claim 11 is allowable over the cited references in that claim 1 recites a combination of elements including, for example, “converting the Red, Green and Blue N-bit digital data signal into Red, Green and Blue M-bit digital data signals, respectively, wherein each of N and M is an integer, M is greater than N, and numbers of gray scale values of at least two of

the Red, Green and Blue M-bit digital data signals are different from each other...” For similar reasons set forth with respect to claim 1, Applicants respectfully submit that claim 11 and claims 13, 14 and 16-19, which depend from claim 11, are allowable over the cited references.

Applicants believe the application is in condition for allowance and early, favorable action is respectfully solicited. If for any reason the Examiner finds the application other than in condition for allowance, the Examiner is requested to call the undersigned attorney at (202) 496-7500 to discuss the steps necessary for placing the application in condition for allowance. All correspondence should continue to be sent to the below-listed address.

If these papers are not considered timely filed by the Patent and Trademark Office, then a petition is hereby made under 37 C.F.R. §1.136, and any additional fees required under 37 C.F.R. §1.136 for any necessary extension of time, or any other fees required to complete the filing of this response, may be charged to Deposit Account No. 50-0911. Please credit any overpayment to deposit Account No. 50-0911.

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Respectfully submitted,

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